

PD05924AMREMARKS

Claims 1-46 are currently pending in the application. After entry of this Amendment, claims 1-5, 7-33, 35, 36, 38 and 39 will remain pending in the application, claims 1, 3, 5, 7, 12, 13, 19, 20, 24, 25, 29, 31, 33, 35, and 38 having been amended, and claims 6, 34, 37, and 40-46 having been canceled without prejudice or disclaimer. Consideration of this application in view of the foregoing amendments and the following remarks is respectfully requested.

REJECTIONS UNDER 35 USC Sec. 112

Claims 3, 11 and 31 were rejected under 35 USC Sec. 112, first paragraph, as not being enabled.

Applicant respectfully submits that signal reflections, such as microreflections, and impairment masks and/or analysis associated therewith, are described in the Specification (see, for example, page 26, beginning at line 10, through page 28, line 25), and shown in FIG. 15 (see, for example, 'impairment masks' 1517, 1518, 1519, and 1520). Applicant, therefore, respectfully requests withdrawal of the Sec. 112, first paragraph, rejections of claims 3, 11 and 31.

REJECTIONS UNDER 35 USC Sec. 102 and Sec. 103

Claims 1-3, 5-31, 33-35, 37, 38 and 40-46 were rejected under 35 USC Sec. 102(b) as being anticipated by Jacobsmeyer (US Patent No. 5,541,955), and claims 4, 32, 36 and 39 were rejected under 35 USC Sec. 103(a) as being unpatentable over Jacobsmeyer in view of Hewitt (US Patent No 6,526,538).

Jacobsmeyer discloses an adaptive rate modulator/demodulator, which, among other things, uses parallel-branch decoding to translate received symbols into

PD05924AM

corresponding data bits, and uses soft decision metrics of the decoder to provide an estimate of a signal-to-noise ratio ("SNR") and/or predictions of the future SNR.

Hewitt discloses a turbo product code decoder capable of decoding multi-dimensional coding schemes.

Amended independent claims 1, 7, 12, 19, 24, 29, 35, and 38 are directed to, among other things, the identification/correlation of a plurality of different impairment types in a digitally modulated signal.

Jacobsmeier does not teach or suggest, either alone or in combination with Hewitt, specifically identifying or correlating a plurality of different impairment types, as called for in the independent claims of the present application. Moreover, Jacobsmeier does not, either alone or in combination with Hewitt, teach or suggest applying a plurality of impairment masks to soft decision data derived from a digitally modulated signal, with each impairment mask being associated with a different impairment type, as called for in independent claims 1 and 7. Rather, Jacobsmeier is concerned with qualitative aspects of received signals—specifically SNR estimations-- not with the identification of a quantity of impairment types that occur in a digitally modulated signal. Hewitt does not cure this deficiency.

Accordingly, applicant respectfully submits that independent claims 1, 7, 12, 19, 24, 29, 35, and are patentable over the cited references. Dependent claims 2-5, 8-11, 13-18, 20-23, 25-28, 30-33, 35, 37, and 39 are believed to be patentable over the cited art as depending from one or another of the independent claims, and as reciting additional patentably distinct limitations.

Applicant, therefore, submits that all claims are patentable over the cited references and that the application is in condition for allowance.


PD05924AM

If a telephone conference would facilitate examination of this application in any way, the examiner is invited to contact applicant's attorney.

The examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,  
Patrick D. Smith, Applicant

By:

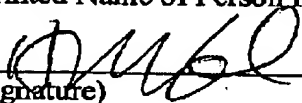
  
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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this document, and any document referenced herein, has been transmitted via facsimile to the US Patent and Trademark Office at (703) 872-9314 on September 8, 2003.

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